

Application Serial Number 10/536,637
Response to Office Action
Dated February 24, 2006

1. Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A device (1) comprising a sensor element (5, 31, 32, 33, and 71) having biomolecular binding sites (5a) for a biomolecule (6a), ~~characterised in that~~ wherein the device (1) further comprises:

a remote power transmission element (3, 101), a resonance circuit, said resonance circuit comprising ~~[[an]]~~ a resonance frequency (f) determining sensor element (5, 31, 32,) or being electrically coupled to a resonance frequency determining sensor element (33, 71), wherein binding at the biomolecular binding sites (5a) ~~effects~~ affects a physical property (~~R, L, C, mass~~) of the sensor element (5, 31, 32, 33, 71) and thereby the resonance frequency (f), and a circuit for RF communication of an RF signal (~~RF~~) in dependence of the resonance frequency of the resonance circuit.

2. (Currently Amended) a device as claimed in claim 1, ~~characterised in that~~ wherein at the remote power transmission element comprises a photodiode (3).

3. (Currently Amended) A device as claimed in claim 1, ~~characterised in that~~ wherein the remote power transmission element comprises a coil (101) for receiving RF power whereby the remote power transmission element is arranged for receiving an RF frequency different from the resonance frequency.

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4. (Currently Amended) A device as claimed in claim 1, ~~characterised in that~~
wherein the sensor element (5, 31, 32) forms a part of the resonance frequency
circuit.
5. (Currently Amended) A device as claimed in claim 4, ~~characterised in that~~
wherein the sensor element (33, 71) forms part of a voltage or current supplying
circuit, coupled to the resonance circuit, wherein the voltage (V) or current (I) of
the supplying circuit is dependent on ~~[[a]]~~ the physical property ~~[[R]]~~ of the
sensor element, and the resonance frequency (f) of the resonance circuit is
dependent on said voltage (V) or current (I).
6. (Currently Amended) A device as claimed in claim 1, ~~characterised in that~~
wherein the sensor element (71) is a ~~GMR~~ magnetoresistive element.
7. (Currently Amended) A device as claimed in claim 3, ~~characterised in that~~
wherein the sensor elements are resistive elements provided in a bridge
configuration.
8. (Currently Amended) A device as claimed in claim 2, ~~characterised in that~~
wherein the sensor~~[[s]]~~ elements are located on the surface of an on-chip
Surface Acoustic Wave/Bulk Acoustic Wave (SAW/BAW) ~~SAW/BAW(Surface~~
~~Acoustic Wave/Bulk Acoustic Wave)~~ resonator which is part of the oscillator
circuit.
- 9-13. (Cancelled).